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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,471	08/24/2000	Masaya Yukinobu	000996	4323

38834 7590 09/09/2005

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

T.P

Application No.

09/645,471

Applicant(s)

YUKINOBU ET AL.

Examiner

Kevin R. Kruer

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16, 19, 20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16, 19, 20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The rejection of claims 16 18-20 and 22-24 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,447,909 in view of WO99-01766 (herein referred to as Buining) has been overcome by the terminal disclaimer of 6/22/2005.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 16, 19, 20, 23 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant claims that the gold containing particles contain "over 50wt%" to 95 wt% of gold. The original disclosure does not contain support for the endpoint "over 50wt%." Applicant argues that the examples in the specification are all over 50%. However, none of the examples give sufficient support the newly claimed endpoint.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 16, 19, 20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP11-203943 (herein referred to as "Yukinobu") in view of WO99-01766 (herein referred to as Buining).

Yukinobu teaches gold-coated silver particles with a mean particle diameter of 1-100nm dispersed in a solvent (claim 7). The particles comprise 5-100 parts by weight of gold per 100 parts by weight of silver (claim 2)-which equates to 4-50wt% of gold. The examiner notes that 50wt% reads on the claimed endpoint of claims 17, 26, and 27. The solution may further comprise silica sol as a binder (claims 11 and 12). The solutions are useful for producing transparent conductive materials for front plates of displays (paragraph 0001).

Yukinobu teaches that gold coated silver particles should comprise 4-50wt% gold, but does not teach the gold should comprise "over 50-95wt%." However, Yukinobu teaches gold exhibits good weather resistance, chemical resistance and conductivity (0026). Furthermore, the courts have held that a prima facie case of obviousness exists when the prior art range does not overlap the claimed range, but is close enough that one skilled in the art would have expected them to have the same properties (see MPEP 2141.05). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize gold coated silver particles comprising more than 50wt% gold as the conductive particles taught in Yukinobu. The motivation for doing so would have been that such particles would have

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been expected to have the same properties as the gold coated silver particles taught in Yukinobu. Furthermore, the additional gold would have improved the particles' chemical resistance, weather resistance, and conductivity.

Yukinobu does not teach that the composition should comprise a functional group compound having at least one functional group selected from mercapto- groups, sulfide groups, and polysulfide groups. However, Buining teaches a solution comprising metal particles and a mercaptosilane residue bound to said metal particles (abstract). The metal particle has a particle size of 5nm or lower and comprise gold or silver (abstract). The mercaptosilane stabilizes the metal particle in a manner that resembles the role of the surfactant (page 12, lines 17+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the mercaptosilane to the solution taught in Yukinobu. The motivation for doing so would have been to stabilize the metal particles in solution.

Response to Arguments

Applicant argues they had possession of particles comprising "over 50wt%" gold when the application was filed. In support of their position, Applicant points to US 6,447,909 which further details applicant's work. The examiner notes that it must be clear from the originally filed disclosure applicant had possession of the claimed invention. Therefore, the disclosure of US 6,447,909 fails to overcome the outstanding 35 USC 112, first paragraph rejection. Applicant further argues said endpoint is supported on page 18, lines 7-16 of the specification and Table 1a (wherein all the

examples comprise more than 50wt% gold). Said disclosure has been fully considered but is not persuasive because it fails to explicitly support the endpoint "over 50wt%."

With respect to the 103 rejection of claims as being unpatentable over JP 11-203943 in view of WO 99-01766, Applicant argues the rejection has been overcome by amendment. The examiner agrees the grounds of rejection of the Non-final rejection mailed 3/24/2005 has been overcome by amendment. The examiner notes, however, the same prior art references have been applied in a new grounds of rejection to meet the pending claims.

Applicant argues the claimed invention exhibits unexpected results with regard to film strength, weather resistance, etc. However, said properties are not unexpected in view of the teachings of the prior art. Specifically, one of ordinary skill in the art would expect such improvements based upon the teachings of Buining. Applicant has failed to provide further explanation on how the data in the specification demonstrates unexpected results. Said argument, therefore, is not persuasive.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

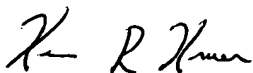
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer
Patent Examiner-Art Unit 1773